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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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09/714,273

11/17/2000

Govind Malalur

108339-09059

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10/20/2006

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EXAMINER

AL HASHEMI, SANA A

ART UNIT

PAPER NUMBER

2164

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/714,273

Applicant(s)

MALALUR, GOVIND

Examiner

Sana Al-Hashemi

Art Unit

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is issued in response to applicant's amendment filed 8/28/06.
2. Claims 1-15 are pending.

### *Claim Rejections - 35 USC § 102*

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4-9, and 11-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Bechtolsheim et al. (Bechtolsheim hereinafter) (US Patent No. 6,829,217 )

Regarding Claims 1, 8, and 15, Bechtolsheim discloses a method of performing a table look-up in a network device comprising the steps of:

receiving a data packet (Fig. 3, step 300 input packet Col. 5, lines 29-33, Bechtolsheim) through an input port of the network device (Col. 5, lines 4-12, Bechtolsheim);

parsing said data packet into an index portion and a corresponding bucket portion (Col. 5, lines 30-37, Bechtolsheim))

indexing, directly, said index portion to said corresponding bucket portion (Col. 6, lines 37-50, Bechtolsheim);

accessing address table information stored in an address look-up table (Col. 11, lines 55-60, Bechtolsheim);

Regarding Claims 2, and 9, Bechtolsheim discloses a method wherein said step of indexing said index portion to said bucket portion is the step of linearly indexing said index portion to said bucket portion (Col. 7, lines 43-47, Bechtolsheim).

Regarding Claims 3, and 10, Bechtolsheim discloses a method wherein said step of indexing said index portion to said bucket portion is the step of XOR indexing said index portion to said bucket portion (Col. 6, Table 2, lines 16-27, Bechtolsheim)

Regarding Claims 4, and 11, Bechtolsheim discloses a method further comprising the step of sorting said bucket portion (Col. 8, lines 37-43, Bechtolsheim).

Regarding Claims 5, and 12, Bechtolsheim discloses a method further comprising the step of binary sorting said bucket portion (Col. 8, lines 3-5, Bechtolsheim).

Regarding Claims 6, and 13, Bechtolsheim discloses a method wherein the step of parsing said data packet into an index portion and a corresponding bucket portion further comprises the step of parsing said index portion so that said index portion will recur when other data is parsed into said index portion and said corresponding bucket portion (Col. 8, lines 6-17, Bechtolsheim).

Regarding Claims 7, and 14, Bechtolsheim discloses a method further comprising the step of storing information regarding said data in said address look-up table as table information when no table information is available using said bucket portion to access table information (Col. 7, lines 17-25, Bechtolsheim).

***Response to Arguments***

Applicant's arguments filed 8/28/06 have been fully considered but they are not persuasive.

Applicant argues that the applied art fails to disclose the limitation “indexing, directly, an index portion of a packet into to corresponding bucket portion from the same packet”.

Examiner disagrees. The applied art discloses the use of the UDP (User Datagram Protocol) that provides direct way to send and receive datagram. Therefore the argued limitation has been met by the use of the UDP in the Bechtolsheim reference.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Other Prior Art Made of Record***

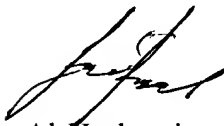
1. Spinney (US Patent No. 5,414,704) discloses address look-up in packet data communication link, using hashing and content-addressable memory.
2. Douceur (US Patent No. 6,067,547) discloses hash table expansion and contraction for use with internal searching.
3. Warren (US Patent No. 6,690,667) discloses a switch with adaptive address lookup hashing scheme.
4. Spinney (US Patent No. 5,414,704) discloses an address lookup in packet data communications link using hashing and content addressable memory.
5. Bauman (US Patent No. 6,046,979) discloses a method and apparatus for controlling the flow of variable length packets through a multi-port switch.
6. Moreton (US Patent No. 5,506,624) discloses a rotating sample of video images.
7. Walker et al. (US Patent No. 5,999,596) discloses a method and system for controlling authorization of credit card transactions.
8. Bechtolsheim et al. (US Patent No. 6,829,217) discloses a per-flow dynamic buffer management.

***Points of Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sana Al-Hashemi whose telephone number is (571) 272-4013. The examiner can normally be reached on 8Am-4:30Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Ronse, can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sana Al-Hashemi  
Patent Examiner  
Technology Center 2100  
October 17, 2006